

# **LEARNING AND SKILLS DEVELOPMENT IN A VIRTUAL CLASS OF EDUCOMMUNICATION BASED ON EDUCATIONAL PROPOSALS AND INTERACTIONS**

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## **ABSTRACT**

In the present paper we describe the analysis of qualitative and quantitative data from asynchronous learning networks, the virtual forums that take place in VirtualNet 2.0, the platform of the University Manuela Beltrán (UMB), inside the course of Educommunication, from the master of Digital technologies applied to education. Here, we performed a multimodal investigation to assess, identify and describe according to the interactions and participations, the characteristics of the asynchronous learning networks (ALN), in order to consider it as a collaborative strategy in the virtual formation.

## **KEYWORDS**

ALN, Virtual Forum, Dialogic-Collaborative Learning

## **1. INTRODUCTION**

It is frequent inside the virtual courses of the UMB the use of forums as resources that favor learning and skills development, as evidenced in the course object of this study. All activities are made using the forums, in which the teacher proposes a discussion based on some readings related to the topics of the course. For this reason, in this research we question about the learning and the skills strengthened in these virtual spaces. Specifically, we question if the dialogs, discussions and reflections made through the forum contribute in the theoretical constructions related to educommunication. Do they reach their learning objectives? Is it possible to consolidate a learning community through the forums and the dialogic exchange? Those approaches are reflections and problems that teachers and students face in the virtual spaces, so they are considered to orient the investigation and contribute to the design of virtual classes of theoretical courses.

## **2. BODY OF PAPER**

### **2.1 Theoretical Fundaments**

Learning theories, from the conductism (Skinner, 1974) to the social learning (Bandura, 1977), have gone through the constructivist and cognitivist trends, adopting a basic psychological perspective. In spite of some of them already taking into account the interactions, they highlight the interpersonal relations that intervene in the imitation and modeling centered in the study of cognitive processes, in which observation is a source of learning.

Wenger (2004) proposes a social learning theory, tightly related to the community of practice, whose conceptualization is developed to make explicit how learning is presented and how knowledge is generated inside these communities. The interest of this research focuses on the learning that takes place in the Educommunication course that brings together (virtually) the students and the teacher through a participation in which their members share their experiences and skills regarding the topic that brings them together.

Garibay and Concarí (2013) made an analysis of the interactions that take place in the forums of a civil engineer course. They used the categories of analysis proposed by Garrison, et al (1999) in order to measure the learning that takes place in the community of inquiry, the same that are used in the interactions that take place in the forums analyzed in this study. Finally, to support this analysis we take into account the investigation made by Coll et al, (2011), where the authors set out and define specific profiles of participation and attendance of the teacher in the asynchronous collaborative learning spaces, that can consolidate as learning communities. Their goal is to go beyond with a multimodal proposal based on social participation and in four components: meaning, practice, engaged communities and identity.

## 2.2 Methodological Design

### 2.2.1 Population

This project is performed with 17 students of a virtual Educommunication class as part of the master in Digital technologies applied to education that takes place in the VirtualNet 2.0 platform of the UMB. This course took place in the academic term of May-July.

### 2.2.2 Materials

Inside the virtual course, the teacher gives the students six academic papers divided into three forums. The Table 1 shows the articles and how they were organized:

Table 1. Papers used in the Educommunication Class

Forum 1	Forum 2	Forum 3
1. Fernández, A. (2012).	1. Barbero, J. (2003).	1. Valderrama, C. y
2. Coslado, Á. (2012)	2. Huergo, J. (2007)	Espitia, U. (2009).
3. Matilla, A. (2006).1		

### 2.2.3 Techniques

The current analysis uses the scientific method of investigation directed to the study of descriptive cases, to achieve a methodological approach that allows analyzing and understanding the activities that intervene in the interaction and the communication strategies inside the virtual class. The techniques used for this study are:

1. The dialogic learning: For this, it is necessary to define the working methodology and the objectives on each forum to focus the discussion and define the goals and expectations that each participant should achieve. This allows having a guide to conduct the process of participation and dialogue.
2. The deepening into the dialogue using threads of reasoning. This explores the conceptualizations proposed, to evaluate what has been discussed with the objective of driving the students to re-evaluate and strengthen its argumentation.

### 2.2.4 Procedures

In the current investigation we will implement a mix multimodal approach. We revised the contributions, participations and dialogic development in each forum, according to the following criteria:

1. Check for the number of participations of each of the students that interacted
2. Establish the categories to assess in the cognitive, social and content-related support
3. Evaluate the cognitive, social and content-related support of each contribution from students
4. Tabulate the structural information taking into account the cognitive and social categories.
5. Graph the structural analysis using the Atlas Ti software (version 7, USA)

## 2.3 Results and Analysis

This study involves a quantitative analysis that allows obtaining the structure of the interaction network that is established in the community. This network is performed using some basic elements of the Analysis of social networks (ARS), the density index and the cohesion index. In the Figure 1, 2 and 3 it can be observed the interactions that took place in the three forums proposed during the course development.

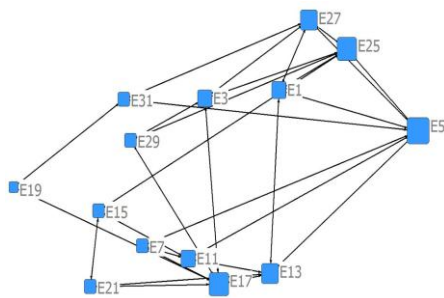


Figure 1. Structural analysis of forum 1

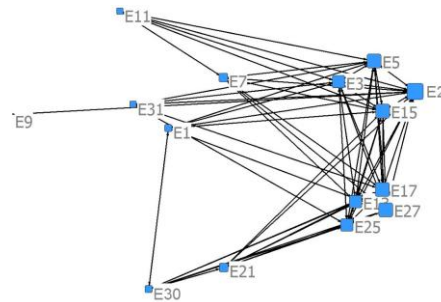


Figure 2. Structural analysis of forum 2

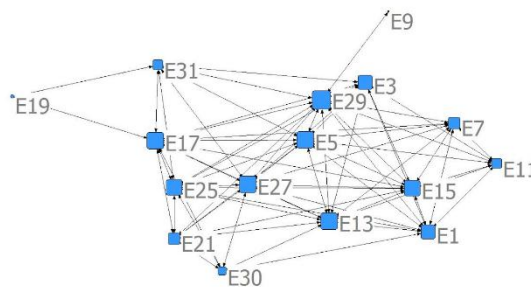


Figure 3. Total structural analysis

In the Figures 1 to 3 each student is represented by a node and its interactions by the arcs (lines) in the graph. When one compares the centrality and the role that each student assumes inside the community in forum 1 (see Figure 1) there are three main nodes (E5, E25 and E17) that correspond to the persons that interact permanently in the discussion and that in this forum take on the role of the teacher support as described by Coll(2011). According to this role, the students orient the discussions and encourage self debate inside the communities where dialogic learning takes place.

There is a group of students located in intermediate locations (nodes E13 and E27) that are not in the periphery and therefore participate with some frequency in the discussions. Additionally, we find that a great number of people in forum 1 have a scarce participation. This situation changes in forum 2, as seen in Figure 2. This transit from the situation in forum 1 to the situation in forum 2 allows a consolidation of a learning community.

When we consider all possible interactions that take place inside the class (see Figure 3) we observe a more distributed centralization, what means that in terms of meaning negotiations the biggest part of the students reach the same learning levels.

### 3. CONCLUSION

Through the proposed discussions in the forums and from previous discussions the learning communities are consolidated. The resource of group and asynchronous discussions make sense in the processes of virtual formation after a first moment of appropriation and identity consolidation in the community. In a first moment, the people that assume a central in the community are scarce and therefore there is a need to accompany the collaborative strategies with other activities that, on the one hand, contribute to the recognition of the people that take part in the communities, and on the other hand potentiate the scope of the learning objectives proposed in virtual education.

We propose that it is necessary to continue the study and the analysis of the content in the interventions inside the forums to identify the relationships that exist between them and the structural analysis performed here. This could account for the development of skills according to the objectives planned in the pedagogic designs in e-learning and propose the study of ARS as an alternative of evaluation in virtual learning spaces and in activities based on forums.

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